REMARKS

The present application includes pending claims 1, 3-7, 9-12, 15-25, and 27, which have all been rejected. The Applicant respectfully submits that the pending claims define allowable subject matter.

The claims have been rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 6,298,109 ("Ergun"). The Applicant respectfully traverses these rejections for the reasons previously submitted, and for those discussed below.

The Examiner maintains that Ergun discloses "dividing a digital image into at least two bands of predetermined width." To support this assertion, the Examiner directs the Applicant's attention to Figure 19 of Ergun. Figure 19, however, does not show "dividing a digital medical image into at least two bands of predetermined width," as recited, for example, in claim 1 of the present application.

Figure 19 of Ergun merely shows an input image 86 and image data 164 that include pixels.

> The transformation process generally requires a determination of the pixel shift for each radiation pixel of the input image 86 [of a rectilinear grid 100 positioned in an x-ray beam 80 (See Ergun column 8, lines 61-63)] which in turn requires an evaluation of the polynomials whose coefficients have been input. A number of techniques are known to evaluate such polynomials including a forward differencing technique or other techniques known in the art. These transformations provide values of u and v *for an image pixel 170 corresponding to a particular radiation pixel 163.*

Ergun at column 10, lines 5-13 (emphasis added). The lines shown in Figure 19 are not multiple

bands of a digital medical image. Rather, the lines intersect one another to show image pixels 170

and radiation pixels 163. Ergun, however, does not teach, nor suggest, "dividing a digital medical

image into at least two bands of predetermined width," such as recited, for example, in claim 1

and shown in Figures 3 and 4 of the present application. As discussed previously during

prosecution of the present application, Ergun bins and eliminates individual pixel values,

wherever they may be in an image.[1] Therefore, Ergun cannot "determine whether the digital

medical image within said at least two bands includes at least one non-clinical region." Thus, at

least for this reason, Ergun does not anticipate the claims of the present application.

The Examiner directs the Applicant's attention to Ergun column 16, lines 28-40 as support

for the assertion that Ergun discloses "masking said at least one non-clinical region...". Ergun

states:

> The image 208 is then used to derive a scatter map. Referring to
> FIG. 23, generally the amount of scatter at a given point will be a
> function of how many x-ray photons are received at points adjacent
> to the given point. For example, comparing the image 208 to a
> theoretical scatterless image 228 generally in an attenuated region
> 230 of the image 208 (e.g., under the spine 200), scatter will
> increase the apparent value in the image 208 as a result of radiation

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[1] With respect to the Examiner's rejection of claim 3, the Applicant respectfully submits that
Ergun at column 11, lines 13-32 does not teach, nor suggest, dividing a medical image into
horizontal or vertical bands. Rather, this portion of Ergun discloses binning pixels in a
histogram 122 according to their values to create a multiple peaked plot. *See* Ergun at column

> from nearby low attenuation regions scattering into the high
> attenuation region 230. Conversely the apparent value at a low
> attenuation region 232 will be decreased because of the scatter into
> the high attenuation region.

Ergun at column 16, lines 28-40. This portion of Ergun discusses deriving a scatter map, but not "masking said at least one non-clinical region...". Ergun does not teach, nor suggest, "masking said at least one non-clinical region based on at least one of gray scale maximum and minimum values for the at least one non-clinical region," as recited, for example, in claim 1 of the present application. The Applicant respectfully submits that merely because Ergun mentions low and high attenuation regions does not mean that Ergun masks non-clinical regions. Ergun simply does not teach, nor suggest, masking a non-clinical region. Thus, at least for this reason, Ergun does not anticipate the claims of the present application.
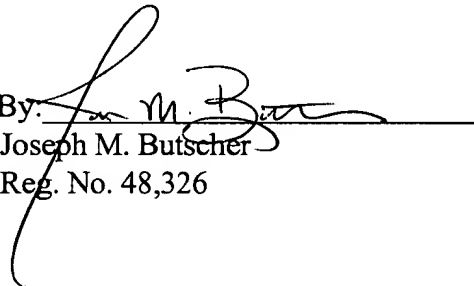
Additionally, Ergun does not teach, nor suggest, "calculating a dynamic range based on a clinical region within each of the bands." As mentioned above, Ergun does not teach, nor suggest, "bands," as recited in the claims of the present application. The Examiner cites column 4, lines 40-45 of Ergun, which relates to Figure 12. This citation does not teach, nor suggest, "calculating a dynamic range for a clinical region." Instead, this citation relates to a plot of raw image data. Further, Figure 6 of Ergun is a "schematic block diagram of a fluoroscopy machine." *See* Ergun at column 4, lines 18-22. Additionally, Ergun column 7, lines 41-66 relates to "Image Noise Reduction" (See Ergun at column 7, line 40), but not to calculating a dynamic range for a clinical region with each of the bands."

11, lines 25-28.

Thus, at least for these reasons, the Applicant respectfully submits that the pending claims

define allowable subject matter. Should anything remain in order to place the present application

in condition for allowance, the Examiner is kindly invited to contact the undersigned at the

telephone number listed below.

Please charge any additional fees or credit overpayment to the Deposit Account of

McAndrews, Held & Malloy, Ltd., Account No. 070845.

Respectfully submitted,

Date: January 8, 2004

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